

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112756 A1

(51) International Patent Classification⁷: **A61K 9/48**,
9/28, 9/20, 9/50, 9/50, 31/44, A61P 1/04

(21) International Application Number:
PCT/CA2004/000825

(22) International Filing Date: 3 June 2004 (03.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/482,439 26 June 2003 (26.06.2003) US
60/548,903 2 March 2004 (02.03.2004) US

(71) Applicants and

(72) Inventors: **ODIDI, Isa** [CA/CA]; 200 Walmer Road,
Toronto, Ontario M5R 3R7 (CA). **ODIDI, Amina**
[CA/CA]; 200 Walmer Road, Toronto, Ontario M5R 3R7
(CA).

(74) Agents: **MCMANUS, Kimberly, A.** et al.; Sim & McBurney,
330 University Avenue, Sixth Floor, Toronto, Ontario
M5G 1R7 (CA).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

*For two-letter codes and other abbreviations, refer to the "Guidance
Notes on Codes and Abbreviations" appearing at the beginning
of each regular issue of the PCT Gazette.*

(54) Title: PROTON PUMP-INHIBITOR-CONTAINING CAPSULES WHICH COMPRISE SUBUNITS DIFFERENTLY
STRUCTURED FOR A DELAYED RELEASE OF THE ACTIVE INGREDIENT

(57) Abstract: An oral pharmaceutical composition comprises multiple populations of at least one of beads, pellets, tablets and granules provided in a capsule, the composition comprising: a first population of a pharmaceutical active comprising a pharmaceutical active substance releasable at a first rate; a population of a basic substance; and a second population of a pharmaceutical active comprising a pharmaceutical active substance releasable at a second rate. In another embodiment, the oral pharmaceutical composition comprises multiple populations of at least one of beads, pellets, tablets and granules provided in a capsule, the composition comprising: a population of a pharmaceutical active; a population of a basic substance; a population of enteric coated pharmaceutical active; and a population of enteric coated basic substance. The composition can provide multiple site specific delivery of a pharmaceutical active in a rapid, delayed and/or sustained release manner into the plasma.

BEST AVAILABLE COPY

WO 2004/112756 A1

THIS PAGE BLANK (USPTO)